## <u>REMARKS</u>

This is a Reply to the Final Action dated September 22, 2004. Before this Reply, Claims 1-28 were pending in the above-referenced patent application. Through this Reply, Claims 7, 16 and 26 have been canceled, whereby Claims 1-6, 8-15 and 17-28 are now pending in the above-referenced patent application. All of the claims were rejected. Claims 1-3, 6-12, 15-22 and 25-28 were finally rejected under 35 USC 102(e) as being anticipated by USPN 5,887,193 to Takahashi et al. ("Takahashi"). Claims 4, 5, 13, 14, 23 and 24 were rejected under 35 USC 103(a) as being unpatentable over Takahashi in view of USPN 6,466,233 to Mitani et al. ("Mitani").

Applicant wishes to thank the Examiner for the informal telephonic discussion conducted with Michael Zarrabian on Dec. 13, 2004, in which differences between the claimed invention and Takahashi were discussed. It was further discussed that a top page including links to devices is first generated, and then when a device link on the top page is selected, the corresponding device is accessed to obtain, and then display, GUI control information for the selected device. Accordingly, the claims have been amended to further clarify those features. No new matter has been added.

# Rejection of Claims Under 35 U.S.C. 102(e)

Rejection of Claims 1-3, 6-12, 15-22 and 25-28 under 35 USC 102(e) as being anticipated by Takahashi is respectfully traversed because Takahashi does not disclose all of the limitations

of the claims.

Takahashi does not disclose that a top page is generated by collecting information from the devices connected to the network. The top page includes links to the devices in the network. From that top page, when a device link is user clicked (selected), the device information (including GUI and device control) in the selected device is accessed to generate a control user interface for the device based. When a device link is selected, the individual device is accessed and at that time information is collected from the individual device to generate a device user interface that allows user interaction with that device.

Accordingly, the claims specify that in one embodiment of the present invention the information in each device includes device information for user interaction with that device, and that a reference in a user interface description includes an link that provides direct access to the device information in a corresponding device. Further, a link can be a hyper-text link that when activated provides access to the corresponding device information.

It is respectfully submitted that Takahashi's multimedia controller reads the device information contained in a connected multimedia device and uses a delegate to generate a control panel for that device. By contrast, according to an embodiment of the present invention, a user interface description is generated and links are included in that user interface description, wherein each link refers to the user interface data of a device connected to the network.

Thereafter, the links are used to obtain information from the corresponding devices, as claimed, whereas as explained in further detail below, in Takahashi the multimedia controller reads all the device information it needs at once and creates a control panel for device without generating a user interface description and without using a reference back to the device information in the stored multimedia device.

Regarding Claim 1, for example, Takahashi does not disclose a method for providing a user interface for controlling devices that are currently connected to a network by: generating a user interface description based at least on the obtained information, the user interface description including a reference associated with the device information in each of said devices currently connected to the network, such that the reference includes at least one electronic link providing direct access from the user interface description to said information contained in said devices currently connected to the network. Further, Takahashi does not disclose that the device information in each device includes a user control interface description for user interaction with that device, such that when a link in the top page user interface description is user activated, the control interface description in the corresponding device is accessed to then generate a device user interface for interacting with that corresponding device.

It is respectfully submitted that in col. 17, line 57 to col. 18, line 7 (relied on by the Patent Office), Takahashi does not disclose the claimed limitations. In that passage Takahashi only mentions that:

As described above, in accordance with the above-described embodiment, only by connecting a multimedia device to a multimedia controller via a LAN, the multimedia device delegate object required to manipulate the multimedia device is automatically generated in the multimedia controller. Further, the control panel required to manipulate the multimedia device is automatically displayed on the display picture of the multimedia controller, and if a user manipulates the control panel, an appropriate message is sent to a controller object of the multimedia device so that a desired manipulation can be performed. The information required to generate the multimedia device delegate object required to manipulate the multimedia device is obtained from a multimedia device delegate object description file read from the multimedia device. Accordingly, the multimedia controller needs only to have a basic class library, and does not need to have information about a specific multimedia device.

There is no mention of generating a user interface description based at least on the obtained information, the user interface description including at least one reference associated with the device information in each of said devices currently connected to the network, as claimed. By contrast, in Takahashi, when a multimedia device is connected to the LAN, the controller obtains a device delegate object description file from the multimedia device to generate a device delegate object that provides a control panel.

As explained in further detail below, Takahashi's device delegate object does not generate a user interface description that includes at least one reference associated with the device information in each of said devices currently connected to the network. Takahashi's multimedia controller transfers the device delegate object description file from the multimedia device and uses the transferred information to build a control panel without generating any kind of a user interface description (col. 9, line 60 to col. 10, line 5; col. 11, lines 29-38). Whereas, in the claimed invention herein, references are included in the user interface description, wherein each reference refers to the user interface data of a device connected to the network. The references are later used to obtain information from the corresponding devices to generate corresponding user interfaces.

Takahashi, FIG. 14 shows a state in which a digital VTR represented as an object has not yet been connected to the multimedia controller. Takahashi (col. 12, lines 27-53) explains that: "As shown in FIG. 14, reference numeral 203 denotes the digital VTR, and a digital, VTR object 206 is resident in the digital VTR 203 and functions as a digital VTR which is identified as an object by the other multimedia devices provided on the LAN 4. The digital VTR object 206 includes three objects. A digital VTR controller object 207 executes hardware control of the digital VTR 203.... The digital VTR delegate object description file 210 includes a digital VTR control panel object description part 211 which describes the specifications of a manipulation panel for the digital VTR 203 and a digital VTR data input/output delegate object description

part 212 which describes the specifications of a digital VTR data input/output delegate object which serves as a delegate to input or output data to or from the digital VTR 203."

Takahashi, FIG. 18 shows a state in which the digital VTR is connected to the LAN.

Takahashi (col. 13, lines 23-35) explains that: "Referring to FIG. 18, a digital VTR delegate object 220 is generated in the multimedia controller 1 when the digital VTR 203 is connected to the LAN 4, and functions as the delegate of the digital VTR 203 in the multimedia controller 1.

The digital VTR delegate object 220 includes a digital VTR control panel object 221 which functions as a control panel of the digital VTR 203 a digital VTR data input delegate object 222 which functions as the delegate of the digital VTR data input object 208 during inputting of data, and a digital VTR data output delegate object 223 which functions as the delegate of the digital VTR data output object 209."

Takahashi then states that when the multimedia device is connected to the LAN, the controller obtains a device delegate object description file from the multimedia device to generate a device delegate object that provides a control panel. Specifically, Takahashi (col. 13, line 36 to col. 14, line 27; FIGS. 16-21) explains that: "... the system director object 205 recognizes the connection to the digital VTR 203 .... Then, the system director object 205 loads the digital VTR delegate object description file 210 from the digital VTR 203 .... Then, the system director object 205 generates the digital VTR delegate object 220 in the multimedia controller 1 on the basis of the digital VTR delegate object description file 210 .... The resultant

state of connection is shown in FIG. 18. Then, the digital VTR delegate object 220 displays the icon display 229 of the digital VTR 203 on the display picture 228 of the multimedia controller 1 .... Subsequently, the user can use the digital VTR 203 via the digital VTR delegate object 220 provided in the multimedia controller 1 by manipulating the digital VTR 203 on the basis of the manipulation picture displayed on the basis of the digital VTR control panel object 221 of the multimedia controller 1 .... FIG. 19 shows the icon display 229 to be displayed when the digital VTR 203 is connected to the LAN 4. FIG. 20 shows a default display picture graphically displayed by the digital VTR control panel object 221 .... FIG. 21 is a view showing the correspondence between the classes to which individual objects belong and the constituent elements of the digital VTR control panel object 221. The classes to which the respective basic constituent elements belong are defined in the class library 1081 (refer to FIG. 9) in advance, and are held in the multimedia controller 1."

Therefore, clearly, there is no mention of generating a user interface description based at least on the obtained information, the user interface description including at least one reference (e.g., link) associated with the device information in each of said devices currently connected to the network, as claimed. In Takahashi, when a multimedia device is connected to the LAN, the controller obtains a device delegate object description file from the multimedia device to generate a device delegate object that provides a control panel. The device delegate object does not generate a user interface description that includes at least one reference associated with the device information in each of said devices currently connected to the network. The multimedia

controller in Takahashi reads the device delegate object description file from the multimedia device once (FIG. 18) and then uses the transferred information in the controller to build a control panel. By contrast to the claimed invention, there is no reference from the transferred delegate object 220 in the controller 1 back to the delegate object description file 210 in the VTR device 203. Nor is there a need for such a reference because all the information needed to create the control panel for the VTR 203 is available to the controller 1 without need to refer back to the VTR 203.

This is clear because Takahashi states that: "FIG. 21 is a view showing the correspondence between the classes to which individual objects belong and the constituent elements of the digital VTR control panel object 221. The classes to which the respective basic constituent elements belong are defined in the class library 1081 (refer to FIG. 9) in advance, and are held in the multimedia controller 1" (col. 14, lines 18-17). However, in the claimed invention, first references are included in the user interface description, wherein each reference refers to the user interface data of a device connected to the network. Then, the references are later used to obtain information from the corresponding devices to generate corresponding user interfaces.

Even if Takahashi can be somehow construed to provide a user interface description,

Takahashi does not disclose that such a user interface description includes one or more
references associated with the device information of one or more devices currently connected to

the network, as required by Claim 1. Takahashi does not teach the concept of using references in the user interface description, wherein the references provide access to information stored in devices connected to the network. As such, according to the claimed invention herein, rather than initially transferring the user interface data contained in each network device and storing each device's transferred user interface data in a controller, references are included in the user interface description which refer to the user interface data of a device connected to the network. When the user interface data of a particular device is needed (e.g., for display to a user for command and control), then a reference in the general user interface description, corresponding to that particular device, is used to access that particular device's user interface data for display to a user, allowing command/control of the particular device via that user interface.

Further, for the above reasons, in col. 18, line 8 to col. 20, line 8 (or elsewhere) Takahashi does not disclose that: the user interface description including a reference associated with the device information in each of said devices currently connected to the network, such that the reference includes at least one electronic link providing direct access from the user interface description to said information contained in said devices currently connected to the network, as claimed. Indeed, in that passage Takahashi simply explains how input and output objects 208, 209 are transferred from the VTR 203 to the controller 1 as objects 222 and 223, to generate provide input/output panels for the VTR 203, much the same way the control panel discussed above. There is no mention of generating a user interface description, and no mention of a user interface description that includes references back to the information in a corresponding device.

Therefore, for at least these reasons, rejection of Claim 1 all claims dependent therefrom should be withdrawn.

Regarding Claim 2, Takahashi does not disclose that the steps of generating the user interface description such that the reference in the user interface description provides access to at least the information in each corresponding device. The Patent Office relies on Takahashi col. 18, line 8 to col. 20, line 8, however, as discussed above, Takahashi does not teach generating a user interface description, nor generating a user interface description including a reference that provides access to the device information in a corresponding device. Neither in the above passage nor elsewhere, does Takahashi disclose using each reference in a user interface description to access the associated information contained in a corresponding device to generate, and then display, a user interface for that device. As noted, Takahashi mentions reading a delegate object description files from a multimedia device, and using the transferred file and a class library in a multimedia controller to generate a control panel. However, Takahashi does not teach using a reference in a corresponding user interface description to access the associated information in each device.

Further, Takahashi does not disclose that each multimedia device has device information contained in that device, wherein that device information is then accessed using references in a user interface description that is generated in another device such as the multimedia controller.

There is no reference to device information in Takahashi, inherent or otherwise, because the

delegate object description file is read from the multimedia device by query, rather than via a reference (such as an address) pointer that provides direct access to such information in individual devices. Therefore, at least for these reasons, and the reasons provided above in relation to Claim 1, rejection of Claim 2 should be withdrawn.

Regarding Claim 3, Takahashi (col. 17, line 57 to col. 18, line 7, relied upon by the Patent Office) does not disclose generating the user interface description such that the user interface description further includes device data corresponding to each device based on the information obtained from each device. Again, as discussed, Takahashi does not mention the steps of generating any type of user interface description according to the claimed invention.

Therefore, for at least these reasons, and the reasons provided above in relation to Claims 1-2, rejection of Claim 3 should be withdrawn.

Regarding Claim 6, Takahashi does not disclose that the device information in each device includes device identification information. Takahashi (col. 34, lines 62-67, relied upon by the Patent Office), does not disclose that the device information in each device includes device identification information. Indeed, in that passage, Takahashi states that the controller assigns IDs to the multimedia devices, and certainly there is no mention of device identification information as claimed herein. Therefore, for at least these reasons, and the reasons provided above in relation to Claims 1-2, rejection of Claim 6 should be withdrawn.

Regarding Claim 8, as discussed Takahashi (col. 18, line 8 to col. 20, line 8) does not disclose generating the user interface description such that each reference (e.g., link) in the user interface description provides direct access to at least the user control interface description in each corresponding device. As detailed above, there is no user interface description generated in Takahashi that includes such references back to the multimedia devices. Therefore, for at least these reasons, and the reasons provided above in relation to Claims 1-2 and 7, rejection of Claim 8 should be withdrawn.

Regarding Claim 9, Takahashi (coli-17, line 57 to col. 20, line 8) does not disclose generating the user interface description such that the user interface description further includes device data corresponding to each device based on the information obtained from each device, the device data providing reference (e.g., link) to the user control interface description in each device. As discussed, there is no user interface description generated in Takahashi which device data having such references back to the multimedia devices. Therefore, for at least these reasons, and the reasons provided above in relation to Claims 1-2 and 7-8, rejection of Claim 9 should be withdrawn.

Claim 10 was rejected for substantially the same reasons that the rejection of Claim 1.

The rejection of Claim 10 is respectfully traversed for at least the reasons provided above in relation to Claim 1. As such Claim 10 all claims dependent therefrom should be allowed.

Claims 11, 12, 15, 17 and 18 were rejected for substantially the same reasons as rejection of Claims 2, 3, 6, 7, 8, 9. The rejection of Claims 11, 12, 15, 17 and 19 is respectfully traversed for at least the reasons provided above in relation to Claims 1, 2, 3, 6, 8, 9 and 10. Therefore, Claims 11, 12, 15, 17 and 18 should be allowed.

Regarding Claim 19, for reasons provided above in relation to Claim 10, Takahashi (col. 17, line 57 to col. 18, line 7 and col. 18, line 8 to col. 20, line 8) does not disclose using each link in a user interface description to access the device information in each corresponding device, and generating the user interface including device data corresponding to each device using the accessed information in each device. As detailed above, there is no user interface description generated in Takahashi that includes such links back to the multimedia devices. Further, nowhere in Takahashi is mentioned that the multimedia controller uses links back to information in the multimedia devices to generate user interfaces including device data corresponding to each device using the accessed information in each device. In Takahashi, when a multimedia device is connected to the LAN, the controller obtains a device delegate object description file from the multimedia device to generate a device delegate object that provides a control panel. The device delegate object does not generate a user interface description that includes at least one reference associated with the device information in each of said devices currently connected to the network. The multimedia controller in Takahashi reads the device delegate object description file from the multimedia device once (FIG. 18) and then uses the transferred information in the controller to build a control panel. In contrast to the claimed invention, there is no reference

from the transferred delegate object in the controller back to the delegate object description file in the multimedia device. Nor is there a need for such a reference because all the information needed to create the control panel for the multimedia device is available to the controller without need to refer back to the multimedia device. For at least these reasons, rejection of Claim 19 should be withdrawn.

Claim 20 was rejected for substantially the same reasons that the rejection of Claim 10.

The rejection of Claim 20 is respectfully traversed for the reasons given above in relation to

Claim 1 Therefore, for at least these reasons, rejection of Claim 20, and all claims dependent therefrom, should be withdrawn.

Claims 21, 22, 25, 27 and 28 were rejected for substantially the same reasons as rejection of Claims 2, 3, 6, 7, 8 and 9. The rejection of Claims 21, 22, 25, 27 and 28 is respectfully traversed for at least the reasons provided above in relation to Claims 2, 3, 6, 8 and 9. Therefore, rejection of Claims 21, 22, 25, 27 and 28 should be withdrawn.

# Rejection of Claims Under 35 U.S.C. 103

Rejection of Claims 4, 5, 13, 14, 23 and 24 under 35 USC 103(a) as being unpatentable over Takahashi view Mitani is respectfully traversed because the references, alone or in combination, do not disclose all of the claimed limitations.

Regarding Claims 4 and 5, as the Patent Office also states, Takahashi does not disclose generating the user interface description by associating a hyper-text link with the device information of each of the devices connected to the network, as required by Claim 4. As the Patent Office further acknowledges, Takahashi does not disclose that the information in each device comprises an HTML page contained in that device, as required by Claim 5.

The Patent Office then concludes that Mitani (col. 6, line 4 to col. 7, line 12) discloses such limitations of Claims 4 and 5. Further, the Patent Office proposes a modification of Takahashi to associate a hyper-text link with the device information of one or more devices in Takahashi's method since HTML would allow the devices to interface with Internet, from service providers, via HTTP protocol.

However, Mitani, col. 6, line 4 to col. 7, line 12, does not disclose generating a user interface description nor does Mitani disclose generating such a user interface description by associating a hyper-text link with the device information in each of said devices currently connected to the network, as required by Claim 4. Indeed, Mitani only mentioned that HTML-form GUI data are received by a control unit 11 from a TV receiver 5 upon request. There is no teaching in Mitani of associating a hyper-text link with the device information of each of said devices currently connected to the network.

One of ordinary skill in the art would not look to combine Takahashi and Mitani. Nor is

there a motivation or suggestion in either reference to do so. Even if Takahashi and Mitani are combined as suggested by the Patent Office, the result does not teach or suggest the claimed invention. Further, such a combination would simply mean the multimedia controller of Takahashi receiving HTML data from devices. This provides no advantage for the purpose of Takahashi because the controller is dedicated to control the devices, and remote control via the Internet is not needed, nor possible. Takahashi is simply not concerned with, nor is appropriate for, the Patent Office's proposed modification to allow Takahashi's devices to interface with Internet, from service providers, via HTTP protocol. At any rate, such a modified system does not teach the disclose of Claim 4. Indeed, such a modified system teaches away from the claimed invention herein. As such, rejection of Claim 4 should be withdrawn.

As per Claim 5, Mitani does not disclose that the information in each device comprises an HTML page contained in that device. Further, as discussed, there is no motivation or use in combining Takahashi and Mitani, and such a combination does not teach the claimed invention herein. As such, rejection of Claim 5 should be withdrawn.

Claim 13 was rejected for the same reasons as Claim 4. The rejection of Claim 13 is respectfully traversed for the reasons given above in relation to Claim 4.

Claim 14 was rejected for the same reasons as Claim 5. The rejection of Claim 14 is respectfully traversed for the reasons given above in relation to Claim 5.

Claim 23 was rejected for the same reasons as Claim 13. The rejection of Claim 23 is respectfully traversed for the reasons given above in relation to Claim 13.

Claim 24 was rejected for the same reasons as Claim 14. The rejection of Claim 23 is respectfully traversed for the reasons given above in relation to Claim 14.

# Conclusion

Accordingly, Applicants respectfully request that the rejections of the claims be withdrawn, and the claims, be allowed for at least the aforementioned reasons. If it is believed that a telephone interview will help further the prosecution of this case, Applicants respectfully request that the undersigned attorney be contacted at the listed telephone number.

If necessary, the Commissioner is hereby authorized to charge payment or credit or any overpayment to Deposit Account No. 01-1960 for any additional fees required in connection with this filing.

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